Health Screening Kiosk
Technical Manual

Product Name	Health Screening Kiosk
Model	SKT-D1007
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Please read the technical instructions before using the product

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1. Preface

Welcome to the Sunson Tech Health Screening Kiosk. This product adopts a vertical and streamlined design., stylish appearance, small footprint, overall ergonomics, comfortable and convenient operation.

The health examination terminal is an all-in-one health examination machine independently developed and produced by Shenzhen Sunson Tech Co., Ltd. Its main functions are blood pressure, blood oxygen, height, weight, BMI, body temperature, receipt printing and other high-tech physical examination terminals. product. suitable for indoor installation: communities, pharmacies, schools, social health centres and other places.

Product main system functions:

- Blood pressure measurement
- Blood oxygen measurement
- Temperature measurement
- Receipt Print
- Weight measurement
- Height measurement
- BMI
- Video ad playback
- QR code scanning
- Multimedia information query
- Modular design, easy installation and strong adaptability
- Supports multiple information prompts such as voice, animation, video, etc.

2. Precautions

To ensure that users can use this product safely and without error, and to avoid causing any harm to third parties or property damage, when using this product for the first time, please be sure to read this safety rule carefully and strictly abide by the following points:

- ☆ This product is only suitable for normal adults and is intended for disabled people in wheelchairs can only detect blood pressure and blood oxygen, but not height, weight, body temperature, or BMI.
- ☆ Do not place heavy objects on the machine, and do not subject the machine to impact, otherwise, it may cause damage to the machine. (The seat can bear 150KG and the table can bear 50KG)
- ☆ Please carefully check the AC power supply AC110V used before use.
- ☆ When moving the machine, all power sources must be disconnected.
- ☆ Be careful when handling equipment to avoid damaging the equipment.
- ☆ Non-professional or authorized personnel are prohibited from opening the casing of the product, otherwise they will be responsible for all consequences.
- ☆ If there is any abnormality such as smoke, odour or strange noise coming from the device, please turn off all power sources of the device immediately, otherwise it may cause fire or electric shock hazard.
- ☆ Do not place vases or cups filled with water on the machine; similar objects should be placed away from the machine.
- ☆ Please use the power cord supplied with the machine.
- ☆ Specific accessories should be used when maintaining the machine, and inappropriate maintenance is strictly prohibited.
- ☆ When cleaning the device, be sure to turn off the main power switch.
- ☆ Do not modify the equipment or install replacement parts on the equipment.
- ☆ Before you connect or unplug any signal, make sure all power sources are turned off.
- ☆ To avoid frequent power on and off, wait at least 30 seconds before powering on again after shutting down.
- ☆ Do not install this equipment in an unstable location.
- ☆ You must use a socket with a protective ground and ensure good grounding, otherwise

there may be a risk of electric shock.

☆ An independent power supply must be used, isolated from the power supply of other equipment.

☆ Do not locate the equipment where access to the power plug is difficult to isolate the equipment circuitry from the main power circuit.

☆ After the equipment and accessories have reached the end of their service life, they must be disposed of by local regulations. Alternatively, they can be returned to the dealer or manufacturer for recycling or proper disposal.

☆ Patients act as an operator and they can use the device to measure their blood pressure, blood oxygen, height, weight, BMI and body temperature.

☆ Do not carry out repairs or maintenance while the equipment is in use. Please interrupt the power input before repairs and maintenance.

☆ Patients are not allowed to perform any maintenance operations. When you are unable to operate the equipment, please consult professional operators or service personnel.

☆ Weight measurement for safe working placement load: 150 kg

☆ Total mobile device mass:300KG (including safe working load 150 KG)

Logo Explanation

Serial Number	Logo	Meaning Explanation
1		BF application type
2		Refer to the instruction manual
3		When an end-user discards a product, it must be sent to an appropriate facility for recycling and reuse
4	ETL CLASSIFIED C ETL US LISTED Intertek	ETL certification mark. This product has met the minimum requirements of generally accepted product safety standards in the United States and Canada and has been tested for relevant product safety standards

3. Usage Environment

3.1 Ground requirements

- A floor that is static-free, dust-free, and lint-free must be used.
- This product is only suitable for indoor use and cannot be installed in an environment exposed to direct sunlight, wind, or rain.

3.2 Working environment

- To ensure the safe operation of various functions of the equipment, the environment

in which the terminal product is located must meet the following conditions:

3.2.1 Normal operating temperature and humidity range

- Temperature: 15℃-40℃
- Relative humidity: 30%-80%

3.2.2 Storage temperature and humidity range

- Temperature: 0℃-50℃
- Relative humidity: 10%-90%

3.2.3 Natural environment

- Atmospheric pressure:860hPA---1060hPA

3.2.4 Electrical requirements

- Power adaptability: AC 120V±10%,60HZ,300VA

3.2.5 part

- The fuse specifications are 125v/6A, and it has passed UL certification. Products with similar specifications can be replaced.
- Fuse replacement steps: Pull out the fuse socket of the filter, install the fuse on the socket, and then install the fuse socket on the filter, as shown in the figure below.

- The terminal product has no other replaceable parts. For example, repair and replacement parts must be provided by the terminal manufacturer.

3.2.6 Main Maintenance Modules

- fuse,
- AC power cord,
- DC power cord,

- Sphygmomanometer cuff.

4. Product Description

4.1 Purpose

Health check one, yes Shenzhen Independently crafted intelligence health, you can adjust height, weight, body temperature, BMI, blood oxygen, and pressure for effective detection and carry out Dynamic Analysis, the all-in-one health machine provides people with health guidance and care through effective detection of the human body and guides people to strengthen self-health management and develop good health. habits, relieving psychological stress, promoting and improving health conditions, and improving quality of life.

4.2 Place

- Grassroots health service station
- Corporate Health Management Center
- Community Management Center
- Student Health Examination Center
- Rehabilitation and health center
- Elderly care institution
- Health Pharmacy
- Townships and villages

4.3 User groups

- Normal adults, regardless of gender.
- For disabled people in wheelchairs, it is only applicable to blood pressure and blood oxygen testing, but not height, weight, or body temperature.

Note: This device is not suitable for newborns, pregnant women, and convulsive patients;

4.4 Classification

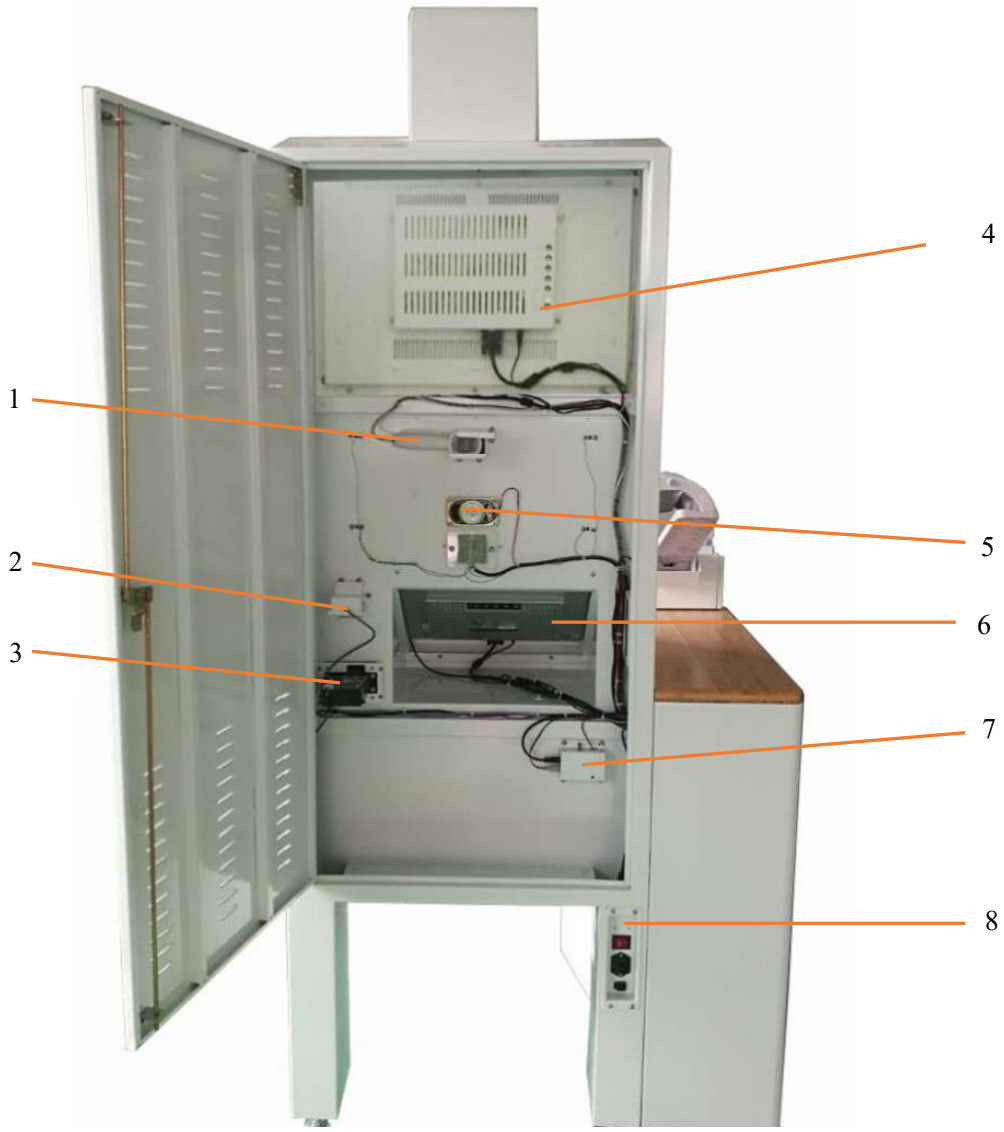
- Anti-electric shock: Level I, Type BF
- Prevent water or particles from entering: IPX0

- No need for disinfection
- Not for use in oxygen-rich environments

5. Product Introduction

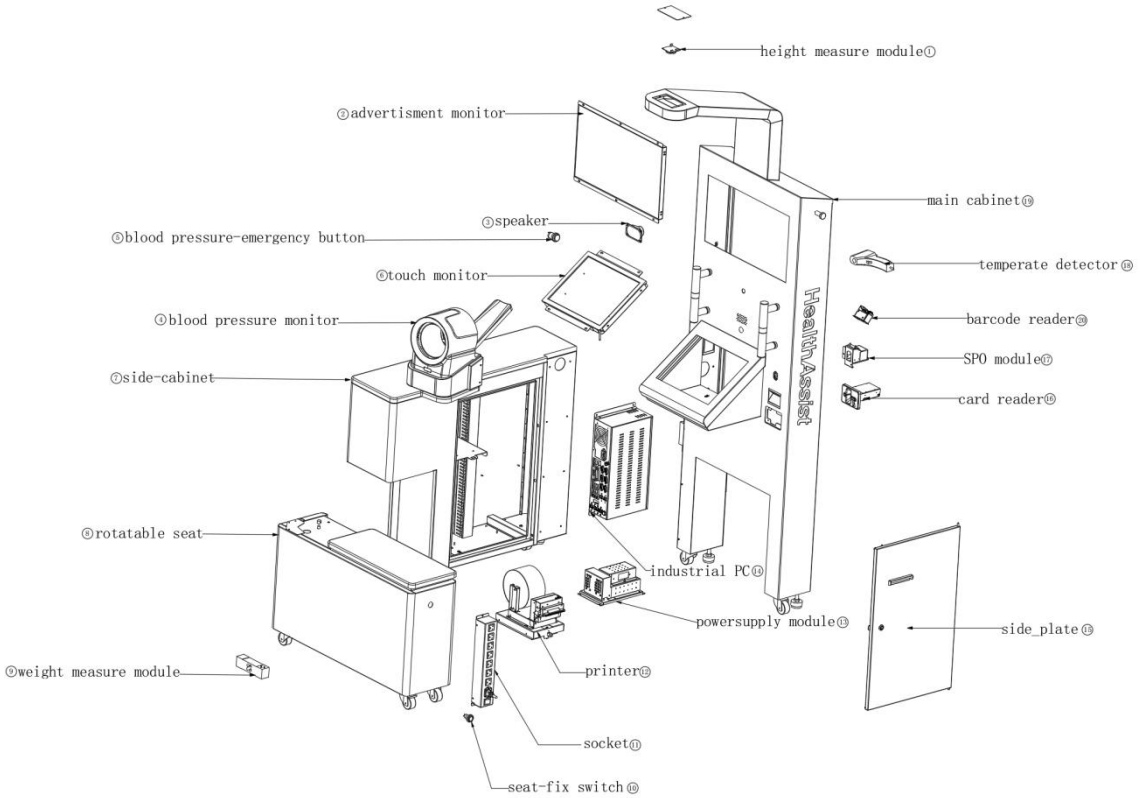
5.1. Product appearance introduction

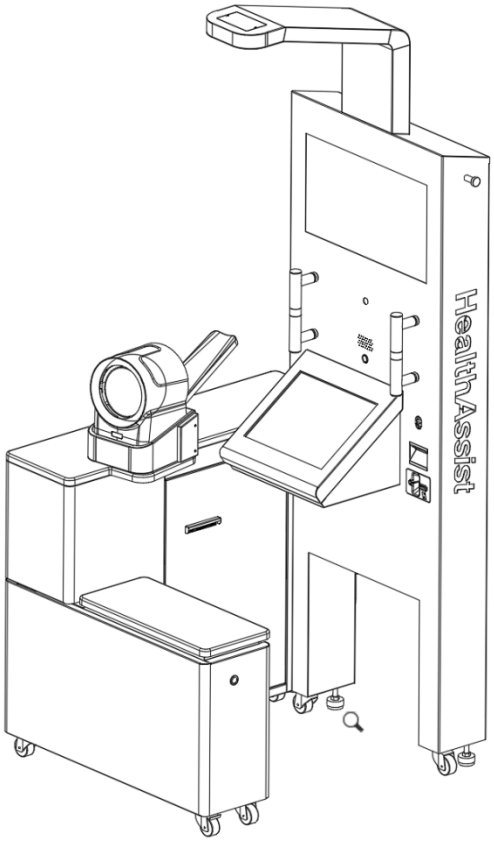
5.2. Internal Product Introduction



1. Body temperature module
2. Blood oxygen probe
3. Card reader
4. Advertising screen
5. Speaker
6. Touch-display integrated screen
7. Audio amplifier board
8. AC power input interface

5.3 Product Structure Chart





6. Introduction to basic product functions

6.1. Function introduction

- Blood pressure
- Blood oxygen
- Body temperature
- Weight
- Height
- BMI
- Receipt printing
- Barcode scanning

6.2. Working principle

1. How the height module works
    - Through ultrasonic sensing, the sensor can determine the height of the human body through the wavelength of the sound wave and the difference in the transmission and reception time of the returned sound wave.
2. How the weight module works
    - The weight information is converted into electrical signals through the pressure sensor, and the measurement data is transmitted to the system through RS485 communication.
3. How the blood pressure module works
    - This product is based on an oscilloscope measurement of blood pressure. The motor simulates the manual binding of the cuff through the transmission device; the pressure sensor detects the pressure of the cuff during the entire process. The air valve of the air pump is responsible for controlling the charge and discharge of the cuff.

4. How the blood oxygen module works

- This product uses pulse oximetry, which is a continuous, non-invasive method for measuring Haemoglobin (Hb) oxygen saturation. It is based on the different absorption of light of different wavelengths by Haemoglobin (Hb) and oxyhemoglobin, which is the principle of spectrophotometry. Two light sources located in the visible red spectrum and infrared spectrum alternately illuminate the area to be measured, usually the fingertip. The amount of light absorbed during these pulsations is related to the amount of oxygen in the blood. The microprocessor calculates the absorption ratio of the two spectra and compares the result with a table of saturation values in memory to obtain the blood oxygen saturation.

1. How does the BMI module work?

The main reference factors include weight and height for calculation.

6.3. Main technical instructions

☆ Installation method: vertical

☆ Installation tools: Phillips screwdriver, hammer, M4 drill bit, electric drill

☆ Product handling requirements:

1. Terminal during transportation product should be placed in the packaging box (wooden box)

2. Use a forklift or mobile truck to move the terminal product Transport to the appropriate installation site

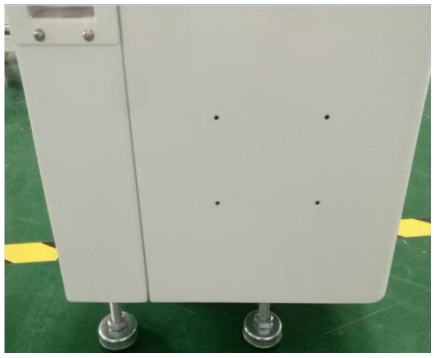
3. During transportation, do not damage the end product and try to keep it in the packaging.

☆ Terminal product installation steps:

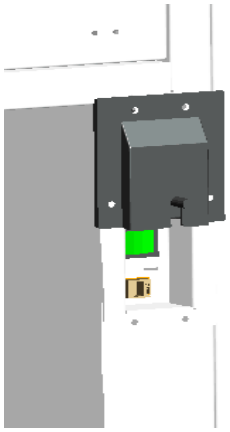
1、 Adjust the balance between the product foot cup and the ground.

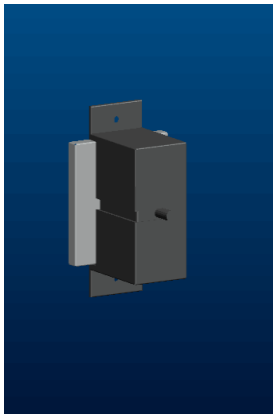
2、 Adjust the product's seat and lock the seat wheels.

3、 Connect the product's external power cord and secure both ends of the power cord so that the power cord cannot be pulled by the outside.

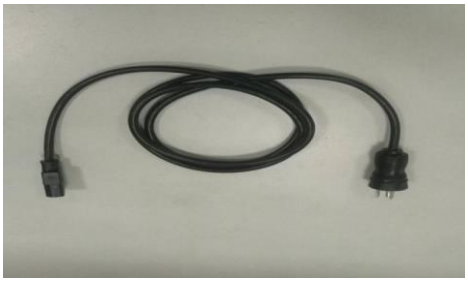


Adjust the balance between the foot cup and the lockable caster wheels





Product power supply AC interface power cord jack end

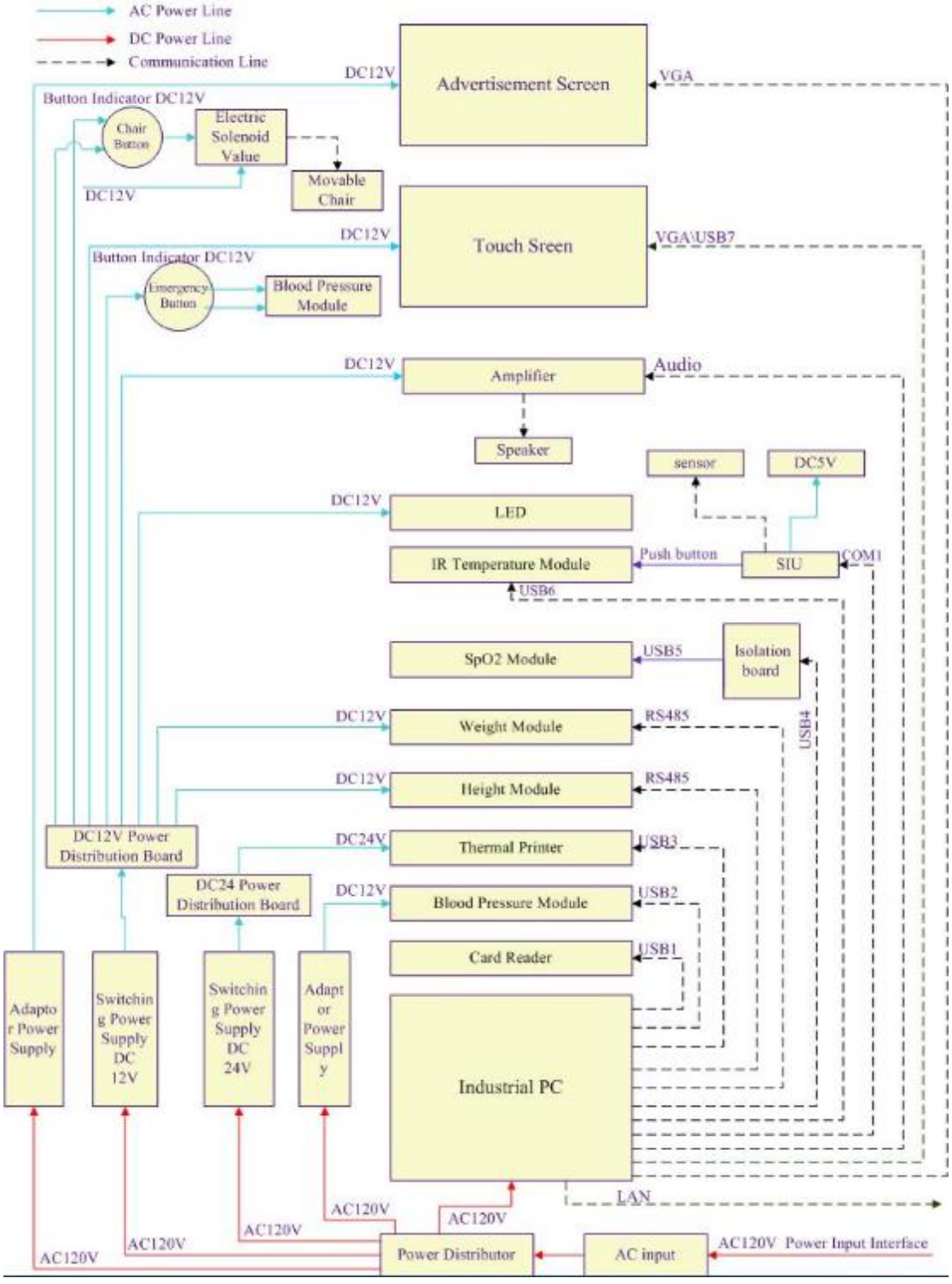


power cable

- ☆ Main control module: H81 chip, LGA1150CPU architecture; 2 DDRIII memory slots; 2 VGA interfaces; 10 USB, 10 RS232 interfaces, ATX300W power supply
- ☆ Touch-display integrated screen: 15-inch infrared integrated screen, VGA interface, DC12V, resolution 1024*768, screen with left and right privacy protection
- ☆ Height module: RS485 communication, DC12V, ultrasonic induction, detection range 80-185CM

- ☆ Receipt printer: USB communication, DC24V, paper width 80mm, supports graphics and text printing, automatic paper cutting, with black mark detection, paper near the end, and anti-jam functions
- ☆ Weight: RS485 communication, range 20-150KG, DC12V
- ☆ Blood pressure: TTL communication, DC12V,
- ☆ Blood oxygen: USB communication, blood oxygen saturation accuracy 70-100%, DC5V
- ☆ Body temperature: USB communication, infrared induction, measuring distance 5-15CM, body temperature range 34-43.0°C, DC5V
- ☆ Operating system: Win7, 32 bit
- ☆ Network protocol: support TCP/IP
- ☆ Working voltage: AC120V 60HZ
- ☆ Maintenance method: front-end and back-end

6.4. Product Circuit Diagram



7. Instructions for use

7.1 Instructions for the use of blood pressure monitor

Precautions:

- Please keep your mood stable before measurement and do not exercise vigorously. If you feel uncomfortable during measurement, please press the "Emergency Stop" button.
- button to stop measurement.
- The test subject needs to use the device according to the arm circumference range (16cm ~ 43cm) marked on the device;
- There should be no continuous external vibration during the detection process. Measurement the patient must sit upright and cannot move or speak, otherwise
- Measurement results may have errors;
- Do not use mobile phones during measurement, as this may cause interference to the equipment and affect the measurement results;

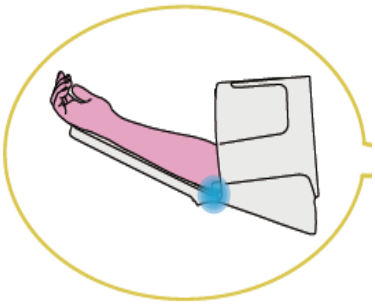
Warn

- Do not take measurements too frequently, as it may cause harm to the patient due to blood flow interference.
- Do not put the sleeve over the wound as this may cause further injury.
- Do not apply the cuff and its compression to any extremity with intravascular access or therapy, or an arteriovenous (AV) shunt, as this will temporarily interfere with blood flow and may result in patient injury.
- Do not press the sleeve and its compression device against your arm on the side where you have a mastectomy.
- Pressurization of the cuff can temporarily cause the loss of functionality of medical monitoring equipment used on the same limb at the same time.
- Please check whether the operation of the automatic blood pressure monitor will cause long-term damage to the patient's blood circulation. (e.g. observing limbs)

Steps:

1. Adjustment Roll position, sit upright and keep your arms at the same level as the role;
2. Put your elbows in reel the blue groove of the pallet; as shown below;

3. Keep your arms flat and relaxed, and press the "Start" button to start measurement;
4. Do not move or speak during measurement;
5. After the measurement is completed, take out the arm and output the systolic and diastolic blood pressure values;



Notice:

- The patient should try to relax and not talk during the measurement process
- It takes about 5 minutes before the first measurement is started
- The measurement site, the patient's position (standing, sitting, lying down), exercise or the patient's physiological condition will all affect blood pressure readings. Please strictly follow the instructions for measurement.

Cleaning and replacing sleeves

1. Unscrew the fixing screws of the rear baffle of the drum and remove the rear baffle, then remove the front retaining ring of the drum and remove the sleeve from the drum.
2. Clean with soap in warm water and do not use corrosive cleaning agents.
3. Let the sleeves dry naturally after cleaning. Do not bake them to avoid deformation and affecting use.
4. Cleaning is recommended based on usage, at least once a month. Then put the sleeve into the roll, make sure the sleeve collar is fixed in the roll slot, cover the front retaining ring and rear baffle of the roll and tighten the fixing screws.

Sphygmomanometer calibration cycle

- Perform calibration or verification at least once a year,
- If you do not have the relevant tooling and inspection tools for calibration or calibration, please contact a qualified institution.

The verification and calibration steps and methods are as follows:

1. First perform the static pressure mode calibration. If the error of the calibration result is

within the specified range, there is no need to perform calibration; the calibration method is by the "Calibration Regulations for Static Pressure Test Mode of Sphygmomanometers", document number "XZ-SKTD1007-JD-01", document Attached.

2. If the error of the static pressure mode calibration result is not within the specified range, calibration is required. The calibration method is according to the "Sphygmomanometer Module Calibration Instructions", document number "XZ-SKTD1007-JZ-01", attached at the end of the document.

Error Code

- Report Code 08: The device has no data to upload.

  Solution:

  1. Check whether the device is powered on normally and confirm that the power supply is normal.
  2. Check whether the device data cable is connected properly, otherwise, reconnect it and confirm that the connection is secure.
  3. Motherboard USB If the port is damaged or has poor contact, replace the motherboard.

- Report Code 18: The cuff cannot be released normally after the measurement is completed.

  Solution:

  1. Equipment failure needs to be detected by the manufacturer and the cause analyzed.

- Report Code 21: The cuff cannot be rolled up normally after starting the measurement.

  Solution:

  1. Equipment failure needs to be detected by the manufacturer and the cause analyzed.

- Report Code 20: After the device starts measuring and tightening the cuff, the pressure does not rise.

  Solution:

1. Check whether the rubber plug at the air port of the equipment is loose or has fallen off, causing air leakage. It needs to be fixed.

- Report Code 22: Motor overload

  Solution:

  1. Equipment failure needs to be detected by the manufacturer and the cause analyzed.

- Report Code 25: The air line pressure is above 15mmhg for more than 3 minutes

  Solution:

  1. Normal protection mechanism, just power on and restart.

- Report Code 26: Air line pressure is 300mmhg

  Solution:

  1. Normal protection mechanism, just power on and restart.

- Report Code 27: ADC acquisition failure

  Solution:

  1. Normal protection mechanism, just power on and restart.

Blood pressure monitor usage legend:

7.2 Instructions for the use of blood oxygen

Precautions:

- Improper placement of the blood oxygen saturation sensor may affect the accuracy of the measurement value. The placement of the blood oxygen saturation sensor on the finger is directional. The light-emitting tube of the probe is on the back side of the hand, and the receiving tube is on the palm side. The insertion depth of the finger should be such that the nail can completely cover the light of the blood oxygen probe.
- Strong light will cause inaccurate measurements. If the light is strong, the sensor should be covered with opaque material.
- When measuring, keep quiet and reduce movement. Frequent movement of the blood oxygen saturation sensor measurement site should be avoided.
- Make sure there is no dirt or scars on the part being measured, otherwise, the

blood oxygen signal may be too low and the blood oxygen measurement may be inaccurate.

- Nail polish, fake nails, or nails that are too long can cause false readings.
- This device is only used for the measurement and storage of SpO2 and HR for normal adults. It uses fingers as the measurement site and is suitable for self-measurement in-home medical environments and public places.
- This device does not have a low SpO2 alarm condition, detects SpO2 or pulse rate physiological alarm conditions, and provides a "No SpO2 alarm" statement on the label.

Warn:

- The maximum usage time of a single-point pulse oximeter probe is 4 hours

Careful:

- A functional tester cannot be used to evaluate the accuracy of this pulse oximeter monitor.
- When the "?" symbol appears, it indicates that the pulse waveform signal is insufficient and does not meet the standardized requirements.

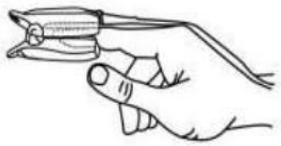
Steps:

1. Insert the index finger of the best measurement part into the blood oxygen probe. If it cannot be positioned correctly on the index finger or the index finger cannot be used, you can use other fingers as the measurement part.
2. Place your index finger on the measuring port of the sensor, align your fingertip with the fingertip inside the sensor, and touch the top of the finger clip.
3. Keep your fingers flat and relaxed, and press the "Start" button to start the measurement.

4. Please do not move your fingers during measurement, otherwise the measurement data will be inaccurate.

5. After the measurement is completed, take out the finger; output the blood oxygen saturation and data.

Blood oxygen sensor



Usage Legend:

7.3 BMI Description

Precautions

- BMI index, you must first measure the height and weight data, and then enter the gender and age information. The BMI index is based on the measured
- The patient's height and weight information are then converted to a BMI-related index.

7.4 Instructions for the use of a thermometer

Precautions

- The distance between the forehead of the person whose temperature is being measured and the infrared temperature sensor should be kept within the range of 5-15CM, and cannot exceed the measurement range, otherwise
- The measurement data is inaccurate.

Steps

1. Sitting upright, the distance between the forehead and the body temperature infrared sensor is within the measurement range. Press "Start" to start the measurement. Within about 30 seconds,
2. Measure the body temperature inside the human body.
3. Body temperature measurement legend

7.5 Height Instructions for Use

Precautions

- To ensure measurement accuracy, the equipment must be installed on a level hard floor.
- During the measurement process, the body of the measurer is not allowed to swing.

Steps

1. The person being tested should wear light clothing and stand upright facing the machine. The head is required to be upright, the trunk is naturally straight, the upper limbs are naturally drooping, the heels are together, and the toes are 60 degrees apart.
2. Press the "Start" button to start the height measurement. Within about 30 seconds, birth height data will be measured.
3. If you are taller than 185CM, please follow the on-screen prompts to manually enter your actual height data.

Height Measurement Legendary

7.6 Weight Instructions for Use

Precautions

- Before measuring the weight, fix the casters of the chair to prevent them from shaking.
- Sit upright with your feet not touching the ground. Press "Start" to start the weight measurement. The weight data will be measured within about 30 seconds.

Weight Measurement Legendary

8. Hardware Requirements

8.1 Main Control Module

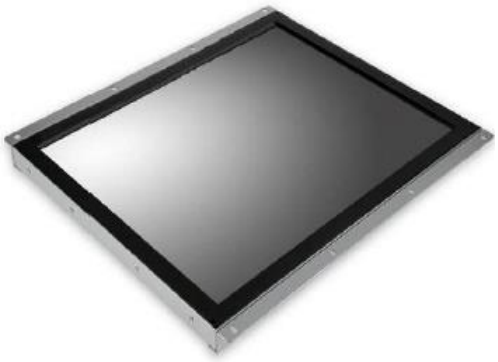
project	Technical specifications
Processor	H81 chip, LGA1150CPU architecture; CPU clocked at 3.2G
Memory	4G DDRIII memory
Storage	500GB
USB interface	10 USB ports
Serial interface	10 serial ports
Video	2 VGA interfaces, support independent dual display
Audio	With sound card
Network	1 10/100/1000Mbps adaptive Ethernet port
Other I/O interfaces	1 Line out, 1 MIC in, 1 Mini PCIe
Operating temperature	0℃~60℃

Industrial Control Host

8.2 Infrared Touchscreen

Project	Technical Specifications
LCD screen parameters	
Screen size	15 inches
Resolution	1024×768
Chroma	16.7M colors
Field refresh Frequency	60Hz
Brightness	250cd/m2
Compared Spend	1000:1
Power supply	<48W
Interface	VGA
Operating Voltage	DC12V
Operating temperature	0℃~50℃
Infrared touchscreen parameters	
Input	Finger
Resolution	4096*4096
Operating Voltage	DC5V

Working current	150mA
Interface mode	USB



Infrared touch screen

8.3 Advertising Screen

Project	Technical specifications
Screen size	21.5 inches
Resolution	1920×1080
Chroma	16. 7M colors
Field refresh frequency	55Hz~75Hz
Brightness	250cd/m2
Compared Spend	1000:1
Response time	20ms
Perspective	Horizontal 85° Vertical 85°

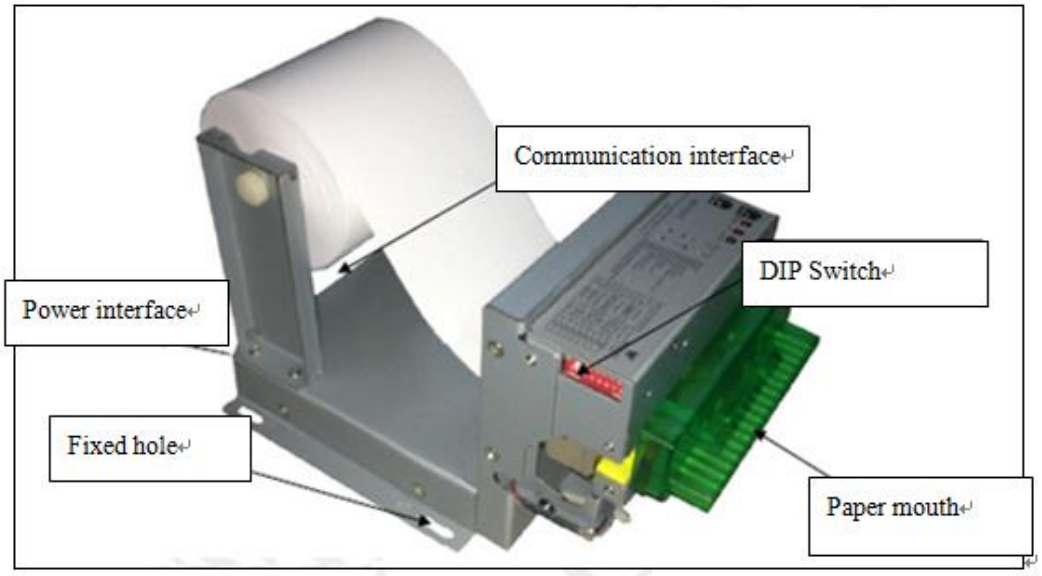
Power supply (when working)	<80W
Interface	VGA
Operating Voltage	DC12V

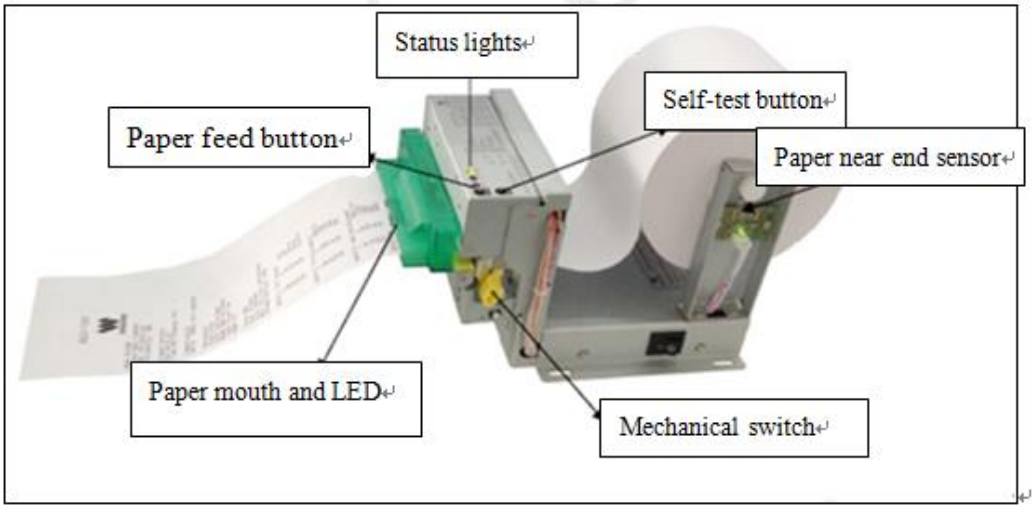
Advertising Screen

8.4 Thermal Printer

Project	Technical specifications
Printing method	Thermosensitive Print
Paper width	80mm
Printing speed	150mm/s
Line width	3.75mm
Paper type	Thermal Paper
Paper roll size	Maximum diameter 100mm/150mm (adjustable by paper
Paper roll size	Inner diameter 12mm, outer diameter 18mm

Supported languages	English
Paper cutting method	Half cut
Operating temperature	-20℃~60℃
Working humidity	5% ~ 95% RH (non-condensed)
Operating Voltage	DC24V±10%, 2A
Communication	USB interface





Thermal printer

8.5 Card Reader

Project	Technical Specifications
Communication Interface	USB2.0 or RS232 interface
Communication rate	USB full speed 12M
Operating Voltage	DC5V
Power supply	Not more than 400mA
Supported card types	Supports contactless, contact IC, magnetic stripe cards, contactless CPU cards that comply with ISO14443 TypeA&B; MIFARE S50, S70 memory cards;
Protocol	ISO14443/1/2/3/4 T=CL protocol, MIFARE
Working frequency	13.56MHz
The card read and write speed	106K/212K/424Kbps
Card reading method	Plug-in
Number of decks	2-4 pcs
Supported card types	PSAM card that complies with ISO7816 standards and supports 3V PSAM card
Support system	Windows/Android

Card Reader

8.6 Human Body Temperature

Project	Technical Specifications
Communication Interface	USB interface
Operating Voltage	DC5V
Temperature measurement range	34-43.0°C
Sensing mode	Infrared sensor
Measure time	1 second
Measure distance	5-15CM
Working temperature	15-40°C
Relative humidity	30-90%
Storage temperature	-20-55°C
Temperature measurement accuracy	0.2°C

Thermometer

8.7 Sphygmomanometer

Project	Technical Specifications
Communication Interface	USB interface
Operating Voltage	DC12V
Blood pressure measurement method	Roll type
Arm circumference	16CM-43CM
Static pressure range	0mmhg-300mmhg
Dynamic value range	Systolic blood pressure: 8.0-30.7KPA, Diastolic blood pressure: 5.3-17.3KPA
Working temperature	5°C -40°C
Relative humidity	15%-90%
Storage temperature	-20°C -55°C
Atmospheric pressure	860hPA-1060hPA

Roll-type sphygmomanometer

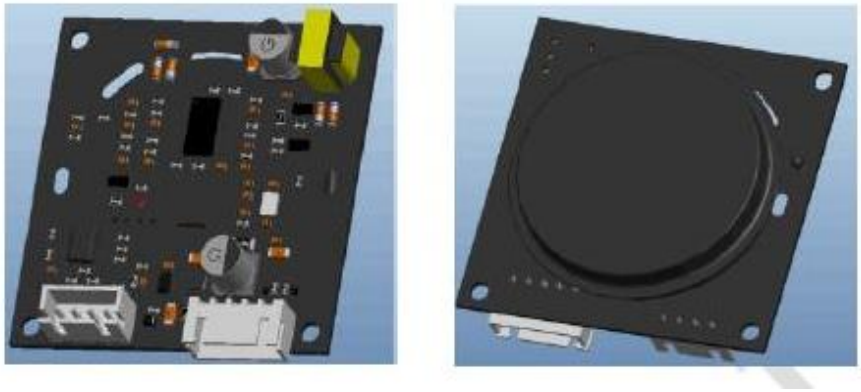
8.8 Blood Oxygen

Project	Technical specifications
Communication Interface	USB interface
Operating Voltage	DC5V
Blood oxygen saturation	70%-100%
Ambient temperature	0-45 degrees
Humidity	30%-95%
Storage temperature	-20-55 degrees
Altitude	Within 5000 meters

Blood oxygen module and probe

8.9 Height

Project	Technical specifications
Communication Interface	RS485 interface
Operating Voltage	DC12V
Sensing method	Ultrasonic induction
Measuring range	10-800CM
Measurement accuracy	±(0.5cm+S*0.2%) CM
Operating temperature	-15-60°C
Humidity	30-90%
Storage temperature	-25-80°C



Height module

8.10 Weight

project	Technical specifications
Communication Interface	RS485 interface
Operating Voltage	DC12V
Measuring range	200KG
Measurement accuracy	0.1KG
Operating temperature	-35-80°C

Weight Module

8.11 SIU Control Board

Project	Technical Specifications
Communication Interface	RS232 interface
Operating Voltage	DC5V
Control function	Supports 1-way button interface and 1-way sensor interface
Operating temperature	-20℃～+60℃
Storage temperature	-40℃～+80℃
Storage humidity	30%～90%

SIU control panel

8.12 Switching power supply

Project	Technical specifications
Input voltage	Input voltage 90V-264V
The output	DC 12V, 24V
Power	150W DC12/12.5A 200W DC24V/8.8A
Ripple coefficient	≤0.05% (when Uo>24V)
Load rate	0～100%
Usage rate	≥80%
efficiency	≥80%
Isolation voltage	Input pair shell: AC l000V/minute (leakage current ≤10mA); input pair output AC l000V/minute (leakage current ≤10mA)
Ground	≤0.1 ohm
Power protection	With overheating, overcurrent, short circuit, overvoltage and undervoltage protection functions
Operating	-25—70 degrees
Working humidity	20-90%
MTBF	≥50,000 hours
Certification	CCC, UL, CE

DC12V switching power supply DC24V switching power

8.13 2D barcode

project	Technical specifications
Communication Interface	USB interface
Operating Voltage	DC5V
Identify barcode	2D: PDF417, QR Code, Data Matrix, Hanseatic Code, GM Code, Aztec, Micro QR, MicroPDF417 One-dimensional: PDF417, QR Code, Data Matrix, Hanseatic Code, GM Code, Aztec, Micro QR, MicroPDF417
Scanning distance	0-5CM, best 5CM

QR code

9. Indications and contraindications

Contraindications

- Patients with oedema in their limbs or a tendency to bleed not applicable;
- Those with coronary heart disease, angina pectoris, myocardial infarction, valvular disease and other organic heart disease;
- Those with a history of arrhythmias, including atrial fibrillation, premature contractions, and tachycardia;
- Damaged skin tissue shall not be measured;
- Personnel who cannot operate the equipment correctly are not allowed to operate the equipment alone;

10. Disclaimer

- The advertising screen provided by this equipment only provides advertising playback functions. The equipment is not allowed to play content that does not comply with laws and regulations or other inappropriate content. The actual playback content after the equipment is deployed is the responsibility of the customer;
- The sounds played during various operations on the equipment are only used as reminders. At the same time, the volume of the sounds played by the equipment can be adjusted. The volume of the sounds played by the equipment after the equipment is deployed needs to meet the actual environmental requirements and is the responsibility of the customer;
- The equipment manufacturer does not assume any responsibility for any abnormal conditions or safety issues that occur after the equipment is deployed due to abnormal emergencies such as man-made sabotage, environmental mutations, earthquakes, wars, or force majeure.
- Situations where people stop, stop or walk suddenly due to equipment advertisements or sounds, etc.

11. EMC warning statement

Require laboratories to provide EMC warning statements

Guidance and Manufacturing Statement - Electromagnetic emission		
The health examination terminal is suitable for the electromagnetic environment specified below. Users of health examination terminals should ensure that they are used in such an environment.		
Radiation testing	**Compliant items**	**Electromagnetic Environment - Guidance**
(RF) emission CISPR 11	Group 1	Health check-up terminals only use radio frequency energy for their internal functions. Therefore, its RF emissions are very low and are unlikely to cause any interference in nearby electronic equipment.
(RF) emission CISPR 11	Class B	Health check-up terminals are suitable for use in all premises, including domestic premises and premises directly connected to the public low-voltage supply network that supplies buildings used by households.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuation/flicker emission IEC 61000-3-3	Conform to	

Guidance and Manufacturing Statement - Electromagnetic Immunity			
The health examination terminal is suitable for the electromagnetic environment specified below. Users of health examination terminals should ensure that they are used in such an environment.			
Anti-interference test	**IEC 60601Test level**	**Comply with grade**	**Electromagnetic Environment - Guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV Contact level ±8 kV air level	±6 kV Contact level ±8 kV air level	Flooring should be wood, concrete or ceramic tiles. If the floor is covered with synthetic materials, the relative humidity should be at least 30%.
Electrical fast transient burst/burst pulse IEC 61000-4-4	±2kVpower cable	±2kVpower cable	Power quality should be that of a typical commercial or hospital environment.
Power surge IEC 61000-4-5	±1kVwire to wire	±1 kV-difference	Power quality should be that of a typical commercial or hospital environment.
Power input line voltage drops, short circuits and voltage changes IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40%UT (60% dip in UT) for 5 cycles 70%UT	<5% UT (>95% dip in UT) for 0.5 cycle 40%UT (60% dip in UT) for 5 cycles 70%UT	Power quality should be that of a typical commercial or hospital environment. If the user of the health check-up terminal needs to continue operating during a power outage, it is recommended that the health check-up terminal be powered by an uninterruptible power supply or battery.

	(30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 seconds	(30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 seconds	
Power frequency magnetic field (50Hz/60Hz) IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels found in a typical commercial or hospital environment.
Remark: UT is the AC mains voltage before test levels are applied.			

Guidance and Manufacturing Statement - Electromagnetic Immunity			
The health examination terminal is suitable for the electromagnetic environment specified below. Users of health examination terminals should ensure that they are used in such an environment.			
Anti-interference test	**IEC 60601Test level**	**Comply with grade**	**Electromagnetic Environment - Guidance**
Conducted RF IEC 61000-4-6	3 V_{rms} 150 kHz to 80 MHz	3Vrms	Portable and mobile radio frequency communication equipment should not be used close to any part of the health examination terminal. Including cables, the recommended isolation distance is calculated by the formula applicable to the frequency of the transmitter.

Radiated RF IEC 61000-4-3	3V/m 80 MHz to 2.5 GHz	3V/m	Recommended isolation distance 80 MHz to 800 MHz 800 MHz to 2.5 GHz where P is the maximum output power rating of the transmitter in watts, and d is the recommended separation distance in meters according to the transmitter manufacturer. The field strength of fixed RF transmitters, determined by electromagnetic field measurements, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1: At 80 MHz and 800 MHz, higher frequency ranges apply.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

[a.] The field strengths of fixed transmitters, such as wireless (cellular/wireless) telephone base stations and land mobile stations, amateur radio, AM and FM radio broadcasts and television broadcasts, cannot be theoretically predicted with accuracy. To assess the electromagnetic environment from fixed RF transmitters, electromagnetic field measurements should be considered. If the location where the magnetic field strength is measured exceeds the applicable RF compliance level, the terminal should be observed to verify normal operation. If abnormal performance is observed, additional measures may be required, such as adjusting or relocating the health check terminal.

[b] In the frequency range 150 kHz to 80 MHz, the electric field strength should be less than 3V/m.

It is recommended to separate the distance between portable and mobile radio frequency communication equipment and health examination terminals.

Health examination terminal intended for use in electromagnetic environments where radiated radio frequency interference is controlled. Users of health check-up terminals can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile

radio frequency communication equipment (transmitters) and health check-up terminals based on the maximum output power of the communication device.

Transmitter rating **Maximum output power** **(W)**	**Determine the isolation distance based on the frequency of the transmitter** **(m)**		
	150kHzarrive80MHz	**80MHzarrive800MHz**	**800MHzarrive2.5GHz**
0.01	**0.117**	**0.117**	**0.233**
0.1	**0.369**	**0.369**	**0.738**
1	**1.167**	**1.167**	**2.333**
10	**3.689**	**3.689**	**7.379**
100	**11.667**	**11.667**	**23.333**

At maximum output power transmitter ratings not listed above, the recommended separation distance d (m) can be estimated using the equation applicable to the frequency of the transmitter, according to the manufacturer. Transmitter P is the maximum output power rating of the transmitter in Watts (W).

NOTE 1 At 80 MHz and 800 MHz, higher frequency ranges apply.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.